

The Built Environment

Making Our Buildings Circular

Construction and demolition account for 600 millions tons of waste per year, most of which comes from the demolition of derelict buildings.

That's *in addition* to waste generated within our buildings. This extraordinary figure can be attributed to how buildings are designed, built and used.

the built environment - the human made components of our environment; such as buildings, roads, airports and sewage systems.

- ➔ ***Buildings are not designed to accommodate any use beyond their original purpose***
- ➔ ***Buildings are not designed to be taken apart in a way that allows their component materials to be reused or recycled***
- ➔ ***Lack of flexibility and rigid lease terms mean that building space is often underutilized.***

A Circular Economy for the Built Environment



Better Building Design

Design for Disassembly

The way buildings are put together makes reusing their component parts difficult because the only way to take them apart is to demolish them.

But a systematic approach to dismantling a building - that preserves its component materials - can be achieved by designing it to be taken apart.

Maintain Residual Value

Such a high level of demo debris ends up as waste because it doesn't have any value when the building it was a part of reaches the end of its life.

Using circular materials, and keeping detailed records will allow expired building materials to still be useful, and therefore valuable at the end of a building's life.

Renewable Energy Sources

Buildings consume more energy than all of our trains, planes and automobiles combined.

Incorporating renewable energy sources (like wind, solar & geothermal) into the design of new buildings can make them mini power stations - that create their own energy *and* pump excess back into the grid.

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Better Building Management

Flexibility Means Durability

The digital revolution and the impacts from Covid-19 are changing how we work and live at a pace faster than anyone could have imagined.

Flexible building space can better serve this dynamic demand, reduce the need to build more new space and get more use out of existing space.

Co-Working Space

Rather than lease entire buildings with multi-year commitments; some companies are turning to shared workspace that offers more flexibility.

Commercial and industrial co-working facilities maximize the use of existing space and help companies reduce overhead by renting only what they need.

Sharing Platforms

These allow building owners and managers to maximize the return on their property by expanding the potential uses for the space; and by opening them to markets they wouldn't otherwise be able to reach.

This improves the use rate of existing space and reduces the demand for new space to be built